

Title (en)  
Thermoplastically deformable composite material

Title (de)  
Thermoplastisch verformbarer Verbundwerkstoff

Title (fr)  
Matière composite déformable thermoplastique

Publication  
**EP 2500163 A1 20120919 (DE)**

Application  
**EP 11158864 A 20110318**

Priority  
EP 11158864 A 20110318

Abstract (en)  
Thermoplastically deformable composite material comprises a core layer comprising a glass fiber fabric layer (B) that is connected on both sides with a nonwoven fabric layer (A) comprising polypropylene fibers and glass fibers. The core layer is connected to at least one top layer (D) in the form of a fleece comprising polyethylene terephthalate fibers and polypropylene fibers. An independent claim is also included for producing the composite material comprising joining together fleeces D and A and the fabric B, and the fleeces D and A, needling together the two resulting structures and heating the needled structure to 180-210[deg] C, so that the polypropylene is melted and the fibers join together.

Abstract (de)  
Die Erfindung betrifft einen thermoplastisch verformbaren Verbundwerkstoff aus einer Kernschicht mit einer Glasfasergewebe-Lage, die beidseitig mit einer Faservlies-Lage verbunden ist, welche Polypropylenfasern und Glasfasern enthält. Die Kernschicht ist mit mindestens einer Deckschicht verbunden, die Polypropylenfasern und Polyethylenterephthalatfasern enthält. Die Erfindung betrifft ferner ein Verfahren zur Herstellung des Werkstoffs durch Vernadeln der einzelnen Schichten und Erwärmen zum Aufschmelzen der Polypropylenfasern, sowie die Verwendung des Werkstoffs für Automobilteile.

IPC 8 full level  
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CPC (source: CN EP US)  
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Citation (applicant)  
• WO 2006111037 A1 20061026 - QUADRANT PLASTIC COMPOSITES AG [CH], et al  
• WO 2006048304 A2 20060511 - SEEGER AG & CO KG [DE], et al  
• EP 1868796 B1 20090128 - QUADRANT PLASTIC COMPOSITES AG [CH]

Citation (search report)  
• [AD] WO 2006111037 A1 20061026 - QUADRANT PLASTIC COMPOSITES AG [CH], et al  
• [AD] WO 2006048304 A2 20060511 - SEEGER AG & CO KG [DE], et al  
• [A] EP 1902830 A1 20080326 - QUADRANT PLASTIC COMPOSITES AG [CH]  
• [A] DE 102005028627 B3 20061221 - CARCOUSTICS TECH CT GMBH [DE]  
• [A] DE 202008010737 U1 20081023 - FRENZELIT WERKE GMBH & CO KG [DE]  
• [A] WO 03057453 A1 20030717 - QUADRANT PLASTIC COMPOSITES AG [CH], et al

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Designated extension state (EPC)  
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